CHAPTER 7 - BUILDING CODE AND ADAAG REVIEWS

1.0 General Information

- 1.1 DFM, on behalf of Secretary of Administration, is to develop and adopt standards for inspection and acceptance of projects for the construction of buildings and major repairs and improvements to buildings for state agencies (K.S.A. 75-3783). The standards developed include a process for this acceptance. This process for acceptance is outlined in this chapter and includes: review and acceptance of code footprints, review and acceptance of construction documents including review for accessibility, review and acceptance of fire alarm and sprinkler shop drawing, code inspections of construction and issuance of Certificate of Occupancy FPDC Form 145.
- 1.2 Kansas State Fire Marshal Office (KSFMO) and the Division of Facilities Management (DFM) have a memorandum of understanding. DFM will act as single point of contact and will coordinate with KSFMO, the reviews and acceptance of code footprints for all construction projects on State property. DFM and KSFMO will both sign code footprints. DFM, acting on behalf of KSFMO, will perform reviews of fire alarm plans and sprinkler plans for all construction projects on State property.
- 1.3 All construction projects will be reviewed by DFM for compliance to the building codes and the Americans with Disabilities Act Accessibility Guidelines (ADAAG). The Uniform Federal Accessibility Standards (UFAS) will be used when applicable.
- 1.4 Effective dates of applicable building codes are available on the DFM website at http://da.ks.gov/fp/Code/Code_ADAAG.htm List of Applicable Codes FPDC Form 110. Project architect/engineers that contract with Department of Administration shall follow the applicable codes attached to their contract.
- 1.5 A Request for Review Form FPDC Form 120 is required to be submitted for all items requiring action or review by DFM. This form is available on the DFM website at http://www.da.ks.gov/fp/manual.htm. The form is required for building questions/interpretations, code footprint reviews, construction document reviews, fire alarm and sprinkler shop drawing reviews. The Request for Review form shall have a DFM project number provided. (See chapter 6 for more information on DFM Project Number) Submissions will not be reviewed if the project number is not provided. The DFM project number allows us to file and properly track the project from review through construction and occupancy.
- 1.6 Questions regarding the building code or requests for building code interpretations are to be forwarded to DFM in a written format utilizing the Request for Review FPDC Form 120. All questions and requests for building code interpretations are to be identified with a DFM Project Number (see chapter 6 for more information on DFM Project Number). DFM will issue a written response.
- 1.7 Code footprints are required to be submitted for all new construction, new addition, building renovation/remodeling affecting active or passive life safety systems or change in occupancy of buildings on State property. (KAR 22-1-7) Is a Code Footprint Required? FPDC Form 105 has been developed to answer when a code foot print is required. This form is available on DFM website (http://www.da.ks.gov/fp/manual.htm) under design and construction related forms. This form is only required to be submitted when the applicant feels a code footprint is not required.
- 1.8 If a code footprint has been prepared to address plan of correction items as identified with KSFMO, that code footprint is to be forwarded to the KSFMO as the single point contact for Plan of Correction. Code footprints submitted to DFM for plan of correction will not be reviewed by DFM and will be forwarded to KSFMO for their action.

- 1.9 Code footprints can be submitted at any time during design and documents. These in-progress submittals of code footprints will be reviewed and comments provided. DFM will not provide acceptance of in-progress code footprint submittals, only review comments will be issued. A Request for DFM Review FPDC Form 120 is to accompany all submittals. Documents will not be reviewed if form is not provided. See Section 2.0 in this chapter for procedures.
- 1.10 For projects that are being bid by DFM, a final code footprint must have a Project Acceptance Record FPDC Form 125 signed and issued by DFM to the project architect/engineer and agency prior to bidding. Failure to have a signed accepted Project Acceptance Record when the documents are scheduled for release to bid will prevent the project being released to bid.
- 1.11 For all other projects, final code footprints are required to have a Project Acceptance Record FPDC Form 125 signed and issued by DFM to the project architect/engineer and agency prior to commencement of construction.
- 1.12 The final code footprint can be submitted when the project architect/engineer has determined the Code Footprint is in a final form. (i.e. the submittal can be forwarded prior to completion of construction documents.)
- 1.13 Final Construction Documents shall be submitted to DFM for review for compliance to the accepted code footprint, building codes and Accessibility Laws and Guidelines. (K.S.A. 31-150) If the Construction Documents vary from the accepted code footprint, revisions to the code footprint and/or construction documents will need to be made prior to releasing the project to bid.
- 1.14 If revisions need to be made to an accepted code footprint, the code footprint shall be resubmitted with a revised date and all revisions shall be identified.
- 1.15 Fire alarm and/or sprinkler shop drawings are required to be submitted to DFM for review and acceptance. See Section 3.0 in this chapter for procedures.
- 1.16 DFM Code Compliance Coordinator, on behalf of Secretary of Administration, has authority to approve occupancy. (KSA 75-1262 and KSA 76-757). Certificate of Occupancy FPDC Form 150 will be issued by DFM prior to occupancy of any portion of a building that has been in construction or has a change in occupancy. See section 4.0 in this chapter for procedures.

2.0 Code Footprint Reviews

- 2.1 Each project architect/engineer is responsible to submit a code footprint for review and acceptance by DFM. Code footprints shall be sent to DFM. The code footprint should <u>not</u> be sent to KSFMO. Misdirected and/or incomplete submittals may delay review process.
 - 2.1.1 Due to restrictions on the computer security system, DFM is not able to receive .ZIP files. Please send any review documents to DFM in .DOC / .DOCX, .DWG or .PDF file formats.
- 2.2 Design development submittals must include a design (in-progress "draft") code footprint submission. The in-progress "draft" review box on the Request for Review FPDC Form 120 must be checked.
- 2.3 The 100% construction documents submittals must include a final code footprint submission. The final code footprint shall be routed at least two weeks prior to 100% construction document submittal. The final review box on the Request for Review PFDC Form 120 must be checked.
- 2.4 The code footprint submittal process is as follows:
 - 2.4.1 Each code footprint submitted must be accompanied by a Request for DFM Review

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- FPDC Form 120. The form is available on Facilities Planning web site (http://www.da.ks.gov/fp/manual).
- 2.4.2 The project architect/engineer is to complete the first page of the Request for DFM Review FPDC Form 120 in its entirety. On the second page of the Request for DFM Review, the project architect/engineer shall complete the Compliance Attestation by identifying each item using an "x" to signify compliance and "NA" for those items that do not apply. Code footprints will not be reviewed if forms are not provided.
- 2.4.3 The code footprint shall be submitted in 11"x17" format and may be multiple pages. The pages are to be numbered x of y. The DFM project number and building number must be part of the title block of the code footprint.
 - 2.4.3.1 The titleblock described at the end of the Construction Document Checklist FPDC Form 223 is required on the code footprints.
- 2.4.4 In-progress code footprint submittals do not require agency signature and can be forwarded electronically to the Code Compliance Coordinator and copied to the Planning Coordinator. The In-progress "draft" review box shall be checked on the Request for Review FPDC Form 120.
- 2.4.5 Signature lines shall be included on the front page for the Agency representative, DFM and KSFM. The Agency representative is to sign the final code footprint prior to submission to DFM.
- 2.4.6 The code footprint submittal for final acceptance shall include two (2) copies of the code footprint along with the Request for Review FPDC Form 120. The two (2) copies of the accepted code footprint will be retained by DFM and KSFM for their files. Only electronic copies of the accepted code footprint will be forwarded to the AE and Agency representatives listed on the Request for DFM Review FPDC Form 120. If an agency or AE wants an original signed copy of the code footprint returned to them, The AE shall route additional originals and indicate recipients for the additional originals. DFM will return additional originals as indicated by the project architect/engineer and agency. It shall be the responsibility of the Agency to inform the AE of their agency preference for additional original code footprints. DFM will not monitor agency preferences and DFM will not make additional copies for agency or project architect/engineer.
- 2.4.7 The submission is to be in black and white format only. Color submissions will not be reviewed and a resubmission will be required.
- 2.4.8 Text shall be readable and legible. Project architect/engineer shall review submission for legibility prior to submission to DFM. All graphics shall conform to the standard included at the end of this chapter and as provided on DFM web site.
- 2.4.9 Each facility is to be identified by building number.
- 2.4.10 Existing conditions shall be identified and shall note if the existing condition is non-conforming. All new work shall be clearly identified.
- 2.4.11 All hazards are to be identified on the code footprint. This is to include hazardous materials and their quantities, any hazardous uses, and any special features/locking devices being proposed for egress doors (except for I-3 occupancies where only the condition type need be identified in the code footprint narrative).

- 2.4.12 Alternative materials, design and methods of construction and equipment should be reviewed with DFM prior to the submittal of the code footprint. Each alternative material, design or method of construction is to be identified and justified on the code footprint. See Chapter 1 of the International Building Code for definition of alternative materials, design and methods of construction and equipment.
- 2.4.13 Temporary exiting measures shall be identified. Note: Existing exits cannot be blocked or impaired during construction. If existing exits are blocked or impaired, temporary exiting measures will be required.
- 2.4.14 The KSFMO has determined that construction areas are hazardous and as such are to be separated from occupied portions of existing buildings with one-hour fire-resistive barriers.
- 2.4.15 Identification of active life safety systems shall be listed as "required / not required" and "provided / not provided" or listed as existing non-conforming.
- 2.4.16 In-progress submittals shall be noted as "draft" or "for review only".
- 2.4.17 Code footprints will be reviewed in the order they are submitted.
- 2.4.18 After review of the "draft" or "for review only" submittal, DFM will issue comments. It is the responsibility of the project architect/engineer to address the comments issued by DFM.
- 2.4.19 Final code footprints shall have the project architect/engineer's seal affixed to the document.
- 2.5 When the final code footprint is accepted, a Project Acceptance Record FPDC Form 125 will be issued. Electronic copies of the Project Acceptance Record and the accepted code footprint will be forwarded to the project architect/engineer and Agency. The electronic copies will be sent to the contact person(s) identified on the request for review. If additional original code footprints have been forwarded, DFM will return to recipients as indicated by project architect/engineer and agency.

3.0 Construction Document Reviews

- 3.1 Construction Documents are to be submitted prior to construction and shall be accompanied by a Request for DFM Review FPDC Form 120 available on our website at http://da.ks.gov/fp/manual.htm. Documents will not be reviewed if form is not provided.
- 3.2 Construction documents are to contain adequate information so compliance with applicable codes can be determined. The Construction Documents Checklist FPDC Form 223 outline required information to be provided.
- A statement of special inspection shall be provided per applicable building codes. The project architect/engineer may reference the project specifications in lieu of a separate statement.
- 3.4 A Project Acceptance Record FPDC Form 125 will be issued electronically when the Construction Documents are accepted by DFM.
- 3.5 Certificate of Occupancy FPDC Form 150 will not be issued if Construction Documents have not been submitted and accepted by DFM.

- 4.0 Fire Alarm and/or Sprinkler Shop Drawings
 - 4.1 Submittals are to be reviewed and approved by the project architect/engineer prior to submittal to DFM. Partial submittals will not be reviewed by DFM. Partial submittals will not be returned or retained by DFM. It is the responsibility of the project architect/engineer to provide a complete submittal for DFM review.
 - 4.2 When the complete shop drawing submittal is approved by the project architect/engineer, they will forward <u>one</u> copy of the complete shop drawing submittal to DFM for review and acceptance. The copy of the shop drawings will be retained by DFM.
 - 4.3 A Request for DFM Review FPDC Form 120 shall accompany the shop drawings. The form is available on Facilities Planning web site (http://da.ks.gov/fp/manual.htm). Shop Drawings will not be reviewed if form is not provided.
 - 4.4 A Project Acceptance Record FPDC Form 125 will be issued electronically when the shop drawings are accepted by DFM.
 - 4.5 Project architect/engineer is to forward DFM acceptance to contractor.
 - 4.6 Installation of the systems shall not begin until DFM Project Acceptance Record has been issued.
 - 4.7 A complete fire alarm submittal shall include all necessary drawings, calculations and product information, and shall include as a minimum:
 - Floor plans the same scale as the architectural drawings.
 - Identification of Edition of NFPA 72 used to design the system.
 - Indicate the use of all rooms including requirements to meet ADAAG
 - Locations of all alarm initiating and notification appliances.
 - Candela rating of all strobes.
 - Location of the FACP and any annunciation panels.
 - Battery Calculations
 - Conductor types, sizes and voltage drop calculations.
 - Model numbers and listing information for equipment and devices.
 - Interlocks with other systems (i.e. fire alarms, HVAC systems, security systems, etc.)
 - Clearly indicate any non-standard conditions, such as, soffits, beam pockets, sloped ceilings, ceilings over 15 ft or any other condition which may alter the standard spacing of initiating or notification appliances.
 - 4.8 A complete sprinkler submittal shall include all necessary drawings, calculations and product information, and shall include as a minimum:
 - Floor plans the same scale as the architectural drawings.
 - Identification of Edition of NFPA 13 used to design the system.
 - Indicate the use of all rooms
 - Hvdraulic calculations
 - Provide the requirements designated in the Plans and Calculations Chapter of NFPA 13 (Chapter 14 in the 2002 edition, Chapter 8 in the 1999 edition) as they pertain to the specific design.

- 5.0 Certificate of Occupancy and Required DFM Code Inspections
 - A Certificate of Occupancy FPDC Form 150 will be issued electronically when all applicable items have been verified acceptable by DFM as outlined on the Occupancy Checklist FPDC Form 145 and per this section. This checklist is available on DFM website http://da.ks.gov/fp/manual.htm. A Certificate of Occupancy will not be issued to a project that does not have a DFM project number.
 - 5.2 It is the responsibility of the agency and/or the project architect/engineer to verify the contractor is contacting DFM and schedule inspections for DFM's determination of occupancy. [K.S.A. 75-3783]
 - 5.3 DFM performs required code inspections during construction for the Secretary of Administration and on behalf of the KSFMO. These inspections are required for Certificate of Occupancy FPDC Form 150.
 - 5.4 DFM inspector shall be scheduled for the following required code inspections (if component is included in the project):
 - 5.4.1 Footings and Foundations
 - 5.4.2 Underfloor / Underslab
 - 5.4.3 MEP Underground (not associated with underfloor / underslab)
 - 5.4.4 Framing
 - 5.4.5 In-wall
 - 5.4.6 Fire-resistive assemblies and fire-resistant penetrations
 - 5.4.7 Above ceiling
 - 5.4.8 Fire Alarm
 - 5.4.9 Sprinkler and standpipe
 - 5.4.10 Emergency lighting
 - 5.4.11 Back-up Power Sources
 - 5.4.12 Fire Pump
 - 5.4.13 Elevator (witness the load testing and verify ADAAG)
 - 5.4.14 Roof inspections, including tear-off, insulation, membrane placement, flashing
 - 5.4.15 Emergency Power
 - 5.4.16 Smoke Control Systems\
 - 5.4.17 Pressure testing of Piping
 - 5.4.18 Locking systems
 - 5.4.19 Final inspections (including exit path and ADAAG verification.)
 - A code inspection will not be provided if the construction project does not have a DFM Project Number. A code inspection cannot be scheduled until the construction documents have been reviewed and accepted by DFM. A Code Inspection cannot be scheduled for a sprinkler system or fire alarm system until the sprinkler and/or fire alarm shop drawings have been reviewed and accepted by DFM.
 - The required code inspections listed above shall be coordinated with DFM inspector via individual cell telephones. Telephone contact is to be a minimum of 3 working days prior to anticipated inspection. DFM inspectors do not have continual access to e-mail and therefore, e-mail contact does not constitute timely contact. Inspection confirmation may occur via e-mail.
 - 5.7 If the DFM inspector has available time within his work schedule, the inspection may not be subject to the minimum 3 working days.
 - It shall be the responsibility of the project architect/engineer or agency to assure the minimum 3 working day notice is being maintained.

- 5.9 DFM inspectors can defer code inspections as follows:
 - 5.9.1 DFM inspector to review installation and set standard by which installation will be inspected. First inspection of a component is to be completed by DFM inspector.
 - 5.9.2 Agency, Contractor or Project architect/engineer is to contact DFM inspector for all required code inspections.
 - 5.9.3 Inspector will indicate availability to make an inspection. Inspector will determine if he, another DFM employee, project architect/engineer or agency can perform inspection. Inspector will inform Contractor and agency representative regarding who will be performing inspection
 - 5.9.4 If agency or project architect/engineer personnel perform inspection, the installation will be documented with pictures. Personnel performing inspection shall forward pictures to DFM Code Compliance Coordinator along with a completed Deferred Inspection Record FPDC Form 140.
- 5.10 DFM representative will not defer and shall be present at the following code required inspections: fire alarm system, sprinkler system, fire pump, standpipes, back-up power sources, emergency lighting, ADAAG and Final Inspection.
- 5.11 DFM inspector will complete an Inspection Record FPDC 135 Form for all completed inspections. An electronic copy of this form will be forwarded to the Agency. It is the responsibility of the Agency to forward to the project architect/engineer and Contractor.
- 5.12 A Certificate of Occupancy FPDC Form 150 will be issued by DFM Code Compliance Coordinator or designee when DFM personnel have determined life safety systems are compliant and as follows:
 - 5.12.1 Occupying a portion of a project:
 - 5.12.1.1 Floor plan is submitted by project architect/engineer to DFM Code Compliance Coordinator indicating area(s) to be occupied, the exiting (permanent or temporary from occupied areas), and indication of separation of occupied areas from construction areas. The rooms are to be identified by room numbers or by floor or area.
 - 5.12.1.2 If the project utilizes state construction contracts, the Certificate Substantial Completion FPDC Form 570 will need to be issued and signed by the Contractor. If the project does not utilize state contracts, the Contractor shall agree in writing to complete and correct all work for the project in accordance with contract documents within a time specified after the date of such occupancy.
 - 5.12.2 Occupying a project that is substantially complete (Contractor has a list of items to complete):
 - 5.12.2.1 If the project utilizes state construction contracts, the Certificate Substantial Completion FPDC Form 570 (reference Chapter 16) will need to be issued and signed by the Contractor. If the project does not utilize state contracts, the Contractor shall agree in writing to complete and correct all work for the project in accordance with contract documents within a time specified after the date of such occupancy.

- 5.12.3 Occupying a project that is satisfactorily complete (Contractor has completed all contract document items):
 - 5.12.3.1 The project architect/engineer and Agency recommends by e-mail to the Code Compliance Coordinator the project is satisfactorily complete and the AE routes the Certificate of Project Completion FPDC form 575 (reference Chapter 16).

6.0 Accessibility Laws and Guidelines

- 6.1 All buildings on state owned property are subject to federal [28 CFR Part 35] and state accessibility laws, <u>K.S.A. 58-1301</u> et seq, which mirror title II of the Americans with Disabilities Act (ADA).
- Americans with Disabilities Act Accessibility Guidelines (ADAAG), 1991 governs all state building construction and renovation projects. When an agency receives federal funds for any of its programs including construction/renovation of the project, the use of the Uniform Federal Accessibility Standards (UFAS) also governs. When this occurs, the most stringent requirement will apply to the project.
- The project architect/engineer is responsible for compliance with ADAAG on all new construction, additions and renovation projects. DFM and the state ADA coordinator will review all projects for compliance with ADAAG and title II during all phases of a project. [K.S.A. 58-1304]
- Prior to the approval of design development, the project architect/engineer shall analyze renovation projects for accessibility. When alterations to a primary function area are being made, the project architect/engineer is responsible to identify what path of travel requirements are triggered. Path of Travel FPDC Form 155 is available on the DFM website at http://da.ks.gov/fp/manual.htm.
- 6.5 Failure to provide complaint accessibility items in documents in all new construction, additions and renovation projects will result in denial of release to bidders or permit to build.
- Any ADAAG, UFAS or Title II issues, including program accessibility, will be resolved by the state ADA coordinator.
- 6.7 The following is a list of accessibility elements commonly omitted on projects. This list is provided for the benefit of the project architect/engineer. This list is not all inclusive and does not relieve the project architect/engineer from the burden of complying with ADAAG.
 - 6.7.1 Multistory governmental facilities are required to have at least one passenger elevator. Single story buildings with a code compliant mezzanine are not considered multistory facilities.
 - 6.7.2 Path of travel requirements are triggered when alterations are being made to a primary function area of a facility, and up to 20% of the construction budget is required to make alterations to meet path of travel requirements.
 - 6.7.3 Accessibility improvements that are required to make a facility accessible to individuals with disabilities shall be provided in the base bid contract, except when the project is limited solely to accessibility improvements.
 - 6.7.4 Dispersion of accessible seating in assembly areas with > 50 occupants.
 - 6.7.5 Parking and drop off areas.

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- 6.7.6 Exterior accessible routes.
- 6.7.7 Required number of accessible entrances and exits.
- 6.7.8 Door opening forces.
- 6.7.9 Control mechanisms, operable by the public, such as automatic door openers, elevator hall call buttons, door handles, light switches, and etc. should be no higher than 38".
- 6.7.10 Reception counters.
- 6.7.11 Areas of rescue assistance requirements.
- 6.7.12 Fire alarm requirements.
- 7.0 Graphic Standards for Code Footprints
 - 7.1 The project architect/engineer shall use the graphic standard provided on the DFM website at http://da.ks.gov/fp/files/Code_Compliance_Symbols.pdf.
 - 7.2 The graphic standard legend contains symbols for the most common items shown on the code footprint.
 - 7.3 If additional graphic symbols are needed to adequately present the building conditions on the code footprint, the project architect/engineer may add symbols to this list. Any additions must be shown on the symbol legend on the code footprint.

END OF CHAPTER 7